



## INVESTIGATOR'S ANNUAL REPORT

United States Department of the Interior  
National Park Service

All or some of the information you provide may become available to the public.

OMB # (1024-0236)  
Exp. Date (11/30/2010)  
Form No. (10-226)

<b>Reporting Year:</b> 2010	<b>Park:</b> Shenandoah NP	<b>Select the type of permit this report addresses:</b> Scientific Study	
<b>Name of principal investigator or responsible official:</b> Christopher Laumer		<b>Office Phone:</b> 920.268.9244	
<b>Mailing address:</b> 48 Cherry St, Apt. #3 Somerville, MA 02144 United States of America		<b>Office FAX</b>  <b>Office Email</b> claumer@oeb.harvard.edu	
<b>Additional investigators or key field assistants (first name, last name, office phone, office email)</b> No co-investigators			
<b>Project Title (maximum 300 characters):</b> Systematics of prorhynchid flatworms (Platyhelminthes: "Lecithoepitheliata") in Shenandoah National Park			
<b>Park-assigned Study or Activity #:</b> SHEN-00382	<b>Park-assigned Permit #:</b> SHEN-2010-SCI-0016	<b>Permit Start Date:</b> May 24, 2010	<b>Permit Expiration Date:</b> Dec 30, 2010
<b>Scientific Study Starting Date:</b> May 24, 2010		<b>Estimated Scientific Study Ending Date:</b> May 27, 2010	
<b>For either a Scientific Study or a Science Education Activity, the status is:</b>  Completed		<b>For a Scientific Study that is completed, please check each of the following that applies:</b>  <input checked="" type="checkbox"/> A final report has been provided to the park or will be provided to the park within the next two years  <input type="checkbox"/> Copies of field notes, data files, photos, or other study records, as agreed, have been provided to the park  <input type="checkbox"/> All collected and retained specimens have been cataloged into the NPS catalog system and NPS has processed loan agreements as needed	
<b>Activity Type:</b> Research			
<b>Subject/Discipline:</b> Invertebrates (Insects, Other)			

<b>Purpose of Scientific Study or Science Education Activity during the reporting year (maximum 4000 characters):</b>  To make a short survey (over a two day period) of microscopic turbellarian flatworms living in forest soil, springs, seeps, creeks, and temporary wetlands of the park. Particular interest is in rediscovering the species <i>Prorhynchus alpinus</i> , which was reported from Madison Co. in an unpublished Master's thesis by Richard Porter at the University of Virginia in 1936. If I can verify Porter's report, I will prepare a short publication on this species, which has not been published from N. America before, and I will also use it for a genetic study of flatworm systematics. Additionally, I will document any remaining undescribed species that may be encountered, and collect further individuals for a study of gene flow in the widespread species within this group. Given the locality information available, this collection will very likely yield specimens from the targeted species as well as perhaps others, and thus may significantly advance our understanding of the natural history and phylogeny of these unique animals in Shenandoah National Park.
<b>Findings and status of Scientific Study or accomplishments of Science Education Activity during the reporting year (maximum 4000 characters):</b>  Samples for microturbellarian species were made during a two day trip to SNP in late May, and were brought back to the Mountain Lake Biological Station near Pembroke, VA for further study. Unfortunately, given the limited number of sites from which samples

were taken, only species with widespread distributions were encountered. Records were made of these specimens, and the localities from which they were collected, but no preserved voucher material was kept. Specimens of one species were kept for a study on their population genetics; however, given their small size, their morphology had to be destroyed to preserve their DNA - therefore these are not "preserved specimens" as such. Of the widespread species encountered, one appears to be undescribed; the NPS will be forwarded a copy of this species description, with locality information listed, upon publication.

**For Scientific Studies (not Science Education Activities), were any specimens collected and removed from the park but not destroyed during analysis?**

No

**Funding specifically used in this park this reporting year that was provided by NPS (enter dollar amount):**

\$0

**Funding specifically used in this park this reporting year that was provided by all other sources (enter dollar amount):**

\$200

**List any other U.S. Government Agencies supporting this study or activity and the funding each provided this reporting year:**

**Paperwork Reduction Act Statement:** A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Public reporting for this collection of information is estimated to average 1.625 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the forms. Direct comments regarding this burden estimate or any aspect of this form to Dr. John G. Dennis, Natural Resources (3127 MIB), National Park Service, 1849 C Street, N.W., Washington, DC 20240.